

Application No. 10/625,081
Response to Office Action

Customer No. 01933

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

RE: THE ALLOWABLE SUBJECT MATTER

The Examiner's indication of the allowability of the subject matter of claim 2 is respectfully acknowledged.

Claim 2, however, has not been rewritten in independent form at this time since, as set forth in detail hereinbelow, it is respectfully submitted that its parent claim 1 also recites allowable subject matter.

RE: THE SPECIFICATION

The specification has been amended to provide proper antecedent basis for the "connection part" of the present invention as now recited in amended claim 2.

No new matter has been added, and it is respectfully requested that the amendments to the specification be approved and entered.

RE: THE CLAIMS

Claim 1 has been amended to make a few minor grammatical improvements, and claim 2 has been amended to better refer to

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the connection part at which the circle gear and the circle are fitted to each other.

Clearly, no new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered.

It is respectfully submitted, moreover, that the amendments to the claims are not related to patentability, and do not narrow the scope of the claims either literally or under the doctrine of equivalents.

RE: THE PRIOR ART REJECTION

Claim 1 was rejected under 35 USC 103 as being obvious in view of the combination of USP 5,667,020 ("Palmer et al") and USP 4,206,818 ("Beckham et al"). This rejection, however, is respectfully traversed.

According to the present invention as recited in claim 1, the circle gear comprises an integrated ring-shaped circle gear. With this structure, if wear or breakage occurs, it is only necessary to displace the worn or broken portion of the circle gear. That is, it is unnecessary to replace all, or even part, of the circle gear. In addition, it is respectfully pointed out that the integrated circle gear of the claimed present invention has a higher rigidity than the divided circle gears of the prior art. Therefore, the integrated circle gear of the claimed

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present invention is more durable and cost effective to maintain than prior art divided circle gears.

As acknowledged by the Examiner on page 3 of the Office Action, Palmer et al does not disclose an integrated ring-shaped circle gear. For this reason, the Examiner has cited Beckham et al to supply the missing teaching of Palmer et al.

It is respectfully submitted, however, that Beckham et al is not properly combinable with Palmer et al to achieve the structure of the present invention as recited in claim 1.

As noted by the Examiner, Palmer et al refers to Beckham et al as disclosing an integrated ring gear. However, Palmer et al also explicitly states that Beckham et al disadvantageously includes a "one-piece ring gear," and Palmer et al explains that their invention is different from Beckham et al in that their ring gear is composed of six separate segments. (See column 3, lines 42-55 of Palmer et al.)

In fact, Palmer et al explains that an integrated ring gear is a disadvantage which must be overcome by providing the segmented ring gear of an excavator in a motor grader (column 1, lines 47-51). Palmer et al further discloses that their invention relates "to a blade mounting assembly having ring gear segments mounted to a blade frame" (column 1, lines 6-8; emphasis added). Thus, it is respectfully submitted that the invention of Palmer et al is clearly to provide a segmented ring gear.

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In addition, it is respectfully submitted that modifying Palmer et al to include an integrated circle gear would clearly render Palmer et al unable to achieve its intended purpose (simplifying maintenance via a segmented ring gear). Therefore, it is respectfully submitted that the combination of Palmer et al and Beckham et al is impermissible for the purpose of achieving the structure of the present invention as recited in claim 1.

As required by MPEP 2143, in order to make a *prima facie* case of obviousness under 35 USC 103, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings.

It is respectfully submitted, however, that there is no suggestion or motivation in Palmer et al or Beckham et al to combine the teachings of these references. Indeed, it is respectfully submitted that Palmer et al teaches away from the integrated circle gear of Beckham et al and the claimed present invention.

Accordingly, it is respectfully submitted that it would not have been obvious to one of ordinary skill in the art at the time that the present invention was made to modify Palmer et al to include an integrated circle gear in the manner of the present invention as recited in claim 1.

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It is respectfully submitted, moreover, that even if Palmer et al and Beckham et al were combinable in the manner suggested by the Examiner, the feature of the present invention as recited in claim 1 whereby the plurality of circle gear mounting bolts are placed at equal pitches on a mounting pitch circle of the circle gear still would not be achieved. With this feature of the present invention, if a portion of the circle gear is damaged, it is possible to displace the circle gear by one pitch of the circle gear mounting bolts.

On page 2 of the Office Action, the Examiner asserts that the bolts 32 and fasteners 34 of Palmer et al correspond to the plurality of circle gear mounting bolts of the present invention as recited in claim 1. It is respectfully pointed out, however, that bolts 32 and fasteners 34 of Palmer et al are clearly provided at different pitches, and that the pitch between respective bolts 32 and fasteners 34 also varies. (See Fig. 4 of Palmer et al.) Therefore, it is respectfully submitted that the bolts 32 and fasteners 34 of Palmer et al are not "placed at equal pitches" in the manner of the plurality of circle gear mounting bolts of the present invention as recited in claim 1. According to Palmer et al, the mounting position of the circle gear segments are determined by the bolt 32, which would require that the position of the circle gear be shifted by 60 degrees if

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it were desired to displace the circle gear in the manner of the present invention.

In view of the foregoing, it is respectfully submitted that the present invention as recited in claim 1, as well as allowable claim 2 depending therefrom, clearly patentably distinguishes over Palmer et al and Beckham et al, taken singly or in combination, under 35 USC 103.

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Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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